

Appl. No. 10/030,728
Amdt. Dated December 23, 2003
Reply to Office Action of August 21, 2003

•• REMARKS/ARGUMENTS ••

The Official Action of August 21, 2003 has been thoroughly studied. Accordingly, the changes presented herein for the application, considered together with the following remarks, are believed to be sufficient to place the application into condition for allowance.

By the present amendment independent claim 1 has been changed to recite that the breathable liquid-impervious sheet comprises an air-pervious and liquid-impervious assembly of first thermoplastic synthetic fibers. Moreover, the previous recitation of thermoplastic synthetic fibers has been changed to "second" thermoplastic synthetic fibers in order to distinguish the outer layers from the intermediate layer.

Support for this change to claim 1 can be found in the paragraph bridging pages 4 and 5 of applicants' specification.

Also by the present amendment, new claim 11 has been added which recites that the air-pervious and liquid-impervious assembly of thermoplastic synthetic fibers is a melt blown nonwoven fabric.

Support for new claim 11 can also be found in the paragraph bridging pages 4 and 5 of applicants' specification.

Claim 9 has been amended to correct an inadvertent error.

Entry of the changes to the claims is respectfully requested.

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Claims 1 and 4-11 are pending in this application.

Claims 1, 4, 5 and 7-10 stand rejected under 35 U.S.C. §102(e) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,037,281 to Mathis et al.

Claim 6 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Mathis et al. in view of U.S. Patent No. 6,045,900 to Haffner et al.

For the reasons set forth below, it is submitted that all of the pending claims are allowable over the prior art of record and therefore, each of the outstanding prior art rejections should properly be withdrawn.

Favorable reconsideration by the Examiner is earnestly solicited.

The Examiner has relied upon Mathis et al. as disclosing cloth-like, liquid-impervious, breathable composite barrier fabrics for use in cover garments. The Examiner states that Mathis et al. teaches that the barrier material 10 is a laminate comprising three layers - a top nonwoven layer 12, for example, of spunbond filaments, a bottom nonwoven layer 16 formed, for example, of spunbond filaments, and a middle breathable film layer 14 formed, for example of a microporous film. The Examiner states that the individual layers of barrier material 10 are laminated, bonded or attached together by known means, including thermal mechanical bonding. The Examiner further states that Mathis et al. teaches that the nonwoven layers 12 and 16 can be formed by substantially continuous and randomly arranged, melt-spun filaments and that Mathis et al. teaches the use of thermoplastic polymeric materials in making the fiber or filaments which form the top nonwoven

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layer 12 and bottom layer 16 are formed. The Examiner states that the middle breathable film layer can be formed of any microporous film that can be suitable bonded or attached top and bottom layers 12, 16 to yield a barrier material 10.

On page 4 of the Official Action the Examiner states that the barrier material of Mathis et al. "exhibits a high level of breathability, as exemplified by a water vapor transmission rate (WVTR) of at least 1000 grams per square meter per 24 hours."

The Examiner concedes that Mathis et al. does not explicitly teach the claimed breathability and water resistance, but takes the position that "it is reasonable to presume that said properties are inherent to the invention of MATHIS et al." The Examiner states that:

Support for said presumption is found in the use of like materials (i.e. barrier material comprising two layers of nonwoven webs of continuous thermoplastic materials attached to the opposite surfaces of a middle breathable film layer by thermal-mechanical bonding).

The Examiner states that the burden is on applicants to disprove the Examiner's presumption.

Applicants' independent claim requires a breathability of about 200 sec/100 cc, and a water resistance of at least about 300 mm.

As noted by the Examiner, Mathis et al. teaches a water vapor transmission rate (WVTR) of at least 1000 grams per square meter per 24 hours.

The water resistance parameters of Mathis et al. are different from those of the present invention because they are based on different testing methods. Mathis et al., however requires a plastic film as a component of the composite barrier.

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As disclosed and presently claimed, all the component layers of applicants' breathable liquid-impervious sheet are fibrous layers.

Mathis et al. does not teach nor provide for the middle breathable layer being anything other than a film layer.

Accordingly, Mathis et al. neither anticipates nor renders applicants' claimed invention obvious.

Moreover, it is submitted that the water resistance and breathability characteristics required by Mathis et al. are necessarily dependent on the presence of the middle film layer of Mathis et al.

In addition to providing the claimed breathability and water resistance, applicants' use of fibrous layers for each of the components of the breathable liquid-impervious sheet provides for excellent cushioning properties which are extremely important for applications such as disposable undergarments.

It is believed that because the structure of the present invention is different from that of Mathis et al. the Examiner's presumption that was based upon the "use of like materials" has been overcome and the Examiner is estopped from relying upon Mathis et al. as before.

The Examiner has relied upon Haffner et al. as a breathable barrier laminate having an outer layer with about a 10 g/m² to about 70 g/m² web of polypropylene spunbond fibers.

The Examiner has taken the position that:

It would have been obvious....to modify the laminate and provide with continuous thermoplastic synthetic fibers layers with a basis weight of about 10 g/m² to about 100 g/m² with the motivation of providing a breathable barrier laminate which

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exhibits good breathability and barrier properties and also excellent peel strength as disclosed by HAFFNER et al.

The Examiner's further reliance upon Haffner et al. does not address or overcome the distinctions between the present invention and Mathis et al. which are discussed above.

Based upon the above distinctions between the prior art relied upon by the Examiner and the present invention, and the overall teachings of prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §102 as anticipating applicants' claimed invention.

Moreover, it is submitted that the Examiner cannot properly rely upon the prior art under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding rejection of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.


It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

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If upon consideration of the above, the Examiner should feel that there remains outstanding issues in the present application that could be resolved, the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,


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